

REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-22 are pending in the present application. Claims 1-7 and 19 are amended by the present amendment.

In the outstanding Office Action, Claims 1-22 were rejected under 35 U.S.C. § 112, second paragraph, and Claims 1-4, 7, 9-11, 13, 14, 17, 19, and 20 were rejected under 35 U.S.C. § 102(e) as anticipated by Kellogg et al. (U.S. Patent No. 6,582,662, herein “Kellogg”).

Regarding the rejection of Claims 1-22 under 35 U.S.C. § 112, second paragraph, Claims 1-7 and 19 have been amended to more clearly recite the fluidic correlation between the supply devices and the at least one fine channel substrate based on Figures 1(a) to 4. No new matter has been added.

Further, it is noted that the outstanding Office Action states in the paragraph bridging pages 2 and 3 that “[t]he claim does not recite that the fine channels are also arranged in a radial configuration so as to align with the supply channels of the fluid supply device” and that “the claimed device is disk-shaped which is not completely recited in the claims.”

With regard to the above statements, Applicants respectfully submit that the fine channels do not have to be arranged in a radial configuration because the alignment of the supply channels with the fine channels is not required to have a functional device.

In addition, although the figures show a disk-shaped device, the invention is not limited to a disk-shaped device and the specification does not require such a shape but only provides an example having such a shape. In fact, it can be appreciated from Figure 9(a) that pumps 18 and 19 inject the fluid and force the fluid through the channels and thus, a disk-shaped medium having radial fine channels is not required. On the contrary, the applied art

uses a centrifugal force as the driving mechanism for moving the fluid and the substrate must be rotated (thus the device must be circular) to produce the centripetal force. In other words, the claimed device may be either circular or not but is not required to be circular as asserted by the outstanding Office Action. Accordingly, it is respectfully requested this rejection be withdrawn.

Regarding the rejection on the merits of the claims, independent Claims 1, 7, and 19 have been amended to more clearly recite that first and second fluid supply devices supply fluids to at least one fine channel substrate and also the connections between the at least one fine channel substrate and the first and second fluid supply devices have been clarified. The claim amendments find support in Figures 3 and 5 and their corresponding description in the specification. No new matter has been added.

Briefly recapitulating, amended Claim 1 is directed to a fine channel device that includes at least one fine channel substrate and first and second fluid supply devices. The at least one fine channel substrate includes at least one fine channel that has first and second inlet ports and at least one fluid outlet port. The first fluid supply device has at least one supply channel that communicates the first inlet port with a first storage space having a first opening. A second opening communicates with the at least one fluid outlet port of the at least one fine channel substrate. The second fluid supply device includes at least one supply channel formed in a radial direction and communicates the second inlet port of the at least one fine channel substrate with a second storage space of the second fluid supply device. Independent Claims 7 and 19 have been amended similar to Claim 1.

In a non-limiting example, Figure 4 shows the first and second fluid supply devices 3, and the at least one fine channel substrate 2.

Turning to the applied art, Kellogg shows in Figure 1 an apparatus for performing microanalytic and microsynthetic analysis. In more details, Kellogg shows in Figure 3 that a

reservoir layer 201 has reservoirs 205 and 207 disposed on a circle having a first radius and reservoirs 208 and 210 disposed on a circle having a second radius. These reservoirs communicate with analyzing chambers 211 and 212. A liquid is inserted in reservoirs 205 and 207 and when the apparatus is rotated, the centripetal force pushes the liquid to the analyzing chamber 211.

Kellogg shows in Figure 5 that microchannels 305 and 306 communicate with the reservoirs 205 and 207 and also communicate with an outlet channel 328 that is linked to the analyzing chamber 211. However, as shown in Figure 1, Kellogg has the reservoirs disposed only in a *single layer* 201 and there is no second supply device in a different layer than layer 201 connected to the microfluidic layer 301 as required by amended Claims 1, 7, and 19.

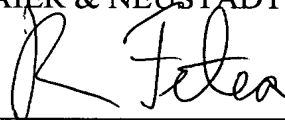
In other words, Kellogg does not teach or suggest that a first fluid is supplied to the at least one fine channel on layer 301 from a first reservoir and a second fluid is supplied to the same fine channel on the same layer 301 from a second reservoir formed in a second supply device, in a layer different from the layer of the first supply device.

Accordingly, it is respectfully submitted that independent Claims 1, 7, and 19 and each of the claims depending therefrom patentably distinguish over Kellogg.

Consequently, in light of the above discussion and in view of the present amendment, the present application is believed to be in condition for allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.



Gregory J. Maier
Attorney of Record
Registration No. 25,599

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 03/06)

Remus F. Fetea, Ph.D.
Registration No. 59,140

I:\ATTY\REF\24S\241124\241124US-AM.DOC